Labor Category Descriptions and Basic Qualifications

1. Program Director/Deputy - (Contract Key Personnel)

Organizes, directs and manages support services for all activities covered by this contract; obtains staff for subordinate personnel; serves as a liaison among contractor's corporate management, program managers and CDC's contract and program directors/managers; has ultimate responsibility for contractor resources and the accomplishment of all tasks assigned under this contract. Authorized to negotiate and make binding decisions on behalf of the company, including signatory authority. Responsible for formulating and enforcing work standards, assigning contractor schedules, reviewing work discrepancies, supervising contractor personnel and communicating policies, purposes, and goals of the organization to subordinates. Shall be responsible for the overall contract performance and shall not serve in any other capacity under this contract.

2. Program Manager- (Contract Key Personnel)

Serves as Program Manager for a large, complex program with centralized and task orders support requirements. Manages substantial software development contract support operations including multiple projects. Organizes, directs, and coordinates planning and production of all the contractor's support activities. Demonstrated experience for oral and written communications with all levels of management for planning and control of projects. Interfaces with CDC management personnel, CDC contracts staff, and other cognizant CDC officials. Capable of meeting in conference with CDC project managers and stating problems in a form capable of being solved. Formulates and reviews project plans, determines cost, and ensures conformance to work standards. Responsible for formulating and enforcing work standards, assigning contractor schedules, reviewing work discrepancies, supervising contractor personnel and communicating policies, purposes, and goals of the organization to subordinates. Assigns, schedules, and reviews work of subordinates. Able to evaluate proposed information systems to determine technical feasibility with government specified technologies, cost for implementation and operation, as well as functional adequacy. Demonstrated ability to manage a team composed of analyst/programmers and specialists in designing and implementing computer systems.

Shall be responsible for the overall contract performance and shall not serve in any other capacity under this contract. Authorized to negotiate and make binding decisions on behalf of the company, including signatory authority.

3. Task Manager

Serves as task manager for large and small, complex task order (or a group of task orders) and assists the Program Manager in working with government management personnel. Under the guidance of the Program Manager, is responsible for the overall management of the specific task order(s) and ensuring that the technical requirements and schedules in the task order are being fully supported in a timely manner. Manages and controls substantial (e.g., multi- system, and/or multifunction) systems, programming requirements, and operational support for assigned tasks. Manages assigned programming and systems contract staff supporting multiple task orders and projects. Organizes, directs, and coordinates estimating, planning, conducting, producing, monitoring, and reporting of all the contractor's personnel support activities. Assigns, schedules, and reviews work of subordinates. Management functions consist of user support, computer/network operations, systems maintenance, data entry, specialized workstations, production control, operating system software analysis, and support tasks and activities performed by the contractor's staff. Plans, directs, controls, schedules, coordinates, and organizes utilization and management of tasks and projects. This also includes security, both physical facility and hardware and software systems, and applications; monitoring of usage, and recommending methodology for more efficient utilization. Evaluates alternatives for more efficient and effective accomplishment of work; establishes procedures, and develops documentation. Interfaces with CDC management personnel, CDC technical monitors and staff, and other cognizant CDC officials. Escalates problems in accordance with established procedures.

4. Biostatistician

Specializes in the application of statistics and/or computer technology to epidemiological studies, laboratory studies, prevention research, and other selected forms of studies/research conducted and/or supported by CDC. Requires thorough knowledge and use of statistical software packages such as SAS, BMDP, or SPSS.

5. Computer Assistant

Prepares, creates, designs, develops, and maintains spreadsheets, reports, and records. Develops presentation quality graphics. Maintains inventory of hardware/software. Tracks checkout of loaner hardware/software. Assists with setting up spreadsheets including entering column and row titles, defining cell formats, etc. Operate automated typewriting equipment and utilize word processing computer systems to record and store statistical, technical and textual information for immediate or future revision, insertions, deletions and subsequent reproduction of reports and documents. Using rough drafts or printed copy as a source document, the operator uses independent judgement to key in specific commands to the automated word processing system to achieve the required formats of textual material including paging, indentation, spacing, selection of character fonts, and insertions of heading. Using draft copies of a manuscript, the operator may also assist in proofreading and correction of syntactical and grammatical errors. Performs

scanning operations including setup, managing, indexing and book marking.

6. Computer Operator II

Monitors operation of the computer. Recognizes, diagnoses, and independently acts on hardware and software malfunctions and error situations to insure processing is in accordance with run instructions and saves files to recover properly. Submits, holds, or releases batch jobs as required. Evaluates real-time system performance, takes appropriate authorized standard actions and notifies appropriate senior operations or systems staff of problems. Performs system recovery and back-up, IPLs the system, loads system software, and performs all routine tasks associated with the operation of a mainframe or minicomputer. Develops and implements problem resolution procedures including a "HELP Desk" capability for user assistance.

7. Computer Operator I

Assists in monitoring operation of the computer as well as tending to the associated peripheral devices. Reports and records hardware malfunctions and error situations. Prepares output for distribution. Mounts and dismounts tapes as required. Services printers, tape drives, and other peripheral equipment according to instructions.

8. Computer Programmer III

Provides high level expertise in developing complex software applications involving new technologies, methods, concepts, or approaches. Based on functional and conceptual design specifications, develops diagrammatic plans and design logic required to implement computer programs, IT systems and procedures in support of technical, administrative and information management functions and operations. Analyzes specification developed by a Systems Analyst for such factors as type and extent of information to be processed, designs detailing logic flow diagrams and program code instructions. Verifies accuracy and validity of programs by preparing sample test data and test plans; corrects program errors by revising instructions; modifies programs when required by changes in procedures and reports desired. Performs the above duties under general supervision. Provides detailed instructions and program design specification to intermediate level programmers assigned to a project team, and closely supervise their performance.

9. Computer Programmer II

Provides programming services in developing relatively complex application using standard approaches or less complex systems using new approaches. Able to independently run an entire system or portion thereof and to review and process its output for validity and accuracy.

10. Computer Programmer I

Provides entry level programming support using standard approaches. Studies all systems requirements and develops all levels of block diagrams and logic flow charts. Translates

the specifications into a program of coded instructions used by the computer. Tests, checks, debugs, revises and refines the program as required, to produce the deliverables required by written specifications. Additionally, documents all procedures used throughout the program to allow the program to be run as part of a system, and completes systems documentation to enable a subsequent programmer to make changes as may be required. Able to revise existing programs to make refinements, increase operating efficiency or improve present techniques.

11. Computer Scientist II

Directs and participates in all phases of system development with emphasis on planning, analysis, evaluation, integration and acceptance phases of engineering/scientific projects. Conceptualizes, researches and develops strategic scientific and administrative information systems. Investigates advanced information processing tools to enhance the analysis of scientific data. Performs high level systems analysis, evaluation, design, integration, documentation and implementation of highly complex application. Required: PhD in Computer Science.

12. Computer Scientist I

Performs assigned portions of engineering/scientific projects. Applies the theoretical foundations of computer science to complex information management. This involves developing new and improved concepts, principles and techniques that will advance the body of knowledge of computer science, and adapting and applying advanced computer science methods and techniques to solve complex computer processing requirements. Required: Master degree in Computer Science.

13. Computer/Statistical Assistant

Provides routine analysis and interpretation of data as well as data entry, coding, and transcription. Development of presentation graphics. Enters definitions of variables for survey questionnaires and surveillance forms, including variable names, range labels, default values, and question strings. Assists with development of analysis files for SAS datasets including creation of format libraries, entering titles for tables, and entering previously defined program statements. Assists with setting up spreadsheets including entering column and row titles, defining cell formats, entering previously defined formulas, and exporting results for use in other software packages. Assists with copying tape and disk datasets and transferring files between the mainframe and microcomputers. Performs scanning operations including setup, managing, indexing and book marking.

14. Cost Analyst

Performs Functional Economic Analysis (FEA) to evaluate the costs of alternative ways to accomplish functional objectives. The Cost Analyst develops investment costs, benefits, and risks as part of return on investment or benefits cost analyses. The Cost Analyst ensures that cross-functional, security, and other integration issues are addressed.

15. Data Analyst III

Provides high level expertise in information modeling, requirement analysis and facilitation using methodologies such as Integrated Computer Aided Manufacturing DEFinition (IDEF). Performs analysis to develop fully attributed logical and physical information (data) and business process models following IDEF methodologies. Gather requirements using Joint Application Design (JAD) facilitation techniques in order to collect and define data. Process requirements necessary to support complex large scale and/or decision support systems. Use modeling tools and repositories to effectively and efficiently define and manage the gathering/dissemination of data and business process requirements. Use information gathered to develop database specifications. Designs relational database schemas to support large-scale, mid-tier clients/server, or web-based applications. Use on-line Analytical Processing (OLAP) tools and techniques to effectively implement and manage a data warehouse.

16. Data Analyst II

Provides medium level expertise in information modeling, requirement analysis and facilitation using methodologies such as IDEF. Performs analysis to develop fully attributed logical and physical information (data) and business process models following IDEF methodologies. Gather requirements using JAD facilitation techniques in order to collect and define data. Process requirements necessary to support client/server or web-based applications. Use modeling tools and repositories to effectively and efficiently define data and business process requirements. Designs relational database schemas for large-scale client/server or web-based applications that reside on database management system. Performs work that is reviewed in timely intervals as defined by the senior data analyst. Provide deliverables within the time frames defined by appropriate personnel and reviewed often enough to ensure time frames and quality standards are met.

17. Data Analyst I

Provides low level expertise in information modeling, requirement analysis and facilitation using methodologies such as IDEF. Performs analysis to develop fully attributed logical information (data) and business process models following IDEF methodologies. Perform logical database designs (5-7 entities) to support the development of database schemas necessary to support small applications that reside on database management systems. Performs work with day-to-day supervision or guidance. Prepare deliverables in an iterative fashion that are reviewed until production ready and provided within the time frames defined by appropriate personnel.

18. Data Control Specialist

Coordinates tape library and data preparation activities including scheduling keypunching services, copying of keytapes, recording data in a PC database, etc.

19. Database Specialist II

Able to communicate with management, technicians, and end-users to evaluate needs prior to development of an automated solution. Able to perform data storage, security, integrity, and performance management functions for Database Management Systems (DBMS) supported.Capable of preparing detailed reports which might include system requirements such as concurrent usage factors, data storage requirements, response rates, and discuss procedures for processing data through the use of DBMS including relational data bases. Able to discuss justifications for selection of mainframes, mini-computers or microcomputers as the host for the proposed system. Knowledgeable of available equipment environment to determine technical approaches, and to formulate appropriate solutions. Familiar with data structures, data structure within a DBMS, as well as the methods for defining data relationships. Able to evaluate data base design tradeoffs, performance levels, and space allocation requirements. Knowledgeable of data warehouse, data marts, metadata registries and scanning operations, i.e., setup, managing, indexing, book marking, etc..

20. Database Specialist I

Able to communicate with management, technicians, and end-users to evaluate need prior to development of an automated solution. Able to perform data storage, security, integrity, and performance management functions for Database Management Systems (DBMS) supported. Capable of preparing detailed report which might include system requirements such as concurrent usage factors, data storage requirements, response rates, and discuss procedures for processing data through the use of DBMS including relational data bases. Able to discuss justifications for selection of mainframes, mini-computers or microcomputers as the host for the proposed system. Knowledgeable of available equipment environment to determine technical approaches, and to formulate appropriate solutions. Familiar with data structures, data structure within a DBMS, as well as the methods for defining data relationships. Able to evaluate data base design tradeoffs, impacts on user expectations, performance levels, and space allocation requirements.

21. Data Entry Operator II

Work from various source documents which may have been coded and which may require additional selecting, coding, or interpreting of data to be entered. Such work may require the application of experience and judgement in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. Operates keyboard controlled data entry device such as a word processor or other CRT type device to transcribe data into a form suitable for computer processing. Operates word processing equipment to compile, type, revise, combine, edit, print and store documents. Reads instructions accompanying material, or follows verbal instructions to determine format and content required. Checks completed document on screen for spelling errors, using software. Proofreads and edits document for grammar, spelling, punctuation and format. This work may also include hand correcting of data entry information. Verify or perform work involved in abstracting and/or coding information from schedules, questionnaires, reports, documents, and other written or

printed material according to instructions and related codes involving words, numerical and alphabetical symbols. Work may entail formatting source material into documents such as reports, conference materials, or presentation handouts. As part of the process of handling the materials involved in data to be entered and maintained in computer files, this position may involve: opening, sorting, marking, tabulating, and filing various documents.

22. Data Entry Operator I

Operates keyboard controlled data entry device such as a word processor or other CRT type device to transcribe data into a form suitable for computer processing. Operates word processing equipment to compile, type, revise, combine, edit, print and store documents. Reads instructions accompanying material, or follows verbal instructions to determine format and content required. Checks completed document on screen for spelling errors, using software. Proofreads and edits document for grammar, spelling, punctuation and format. This work may also include hand correcting of data entry information. Verify or perform work involved in abstracting and/or coding information from schedules, questionnaires, reports, documents, and other written or printed material according to instructions and related codes involving words, numerical and alphabetical symbols. Work may entail formatting source material into documents such as reports, conference materials, or presentation handouts. As part of the process of handling the materials involved in data to be entered and maintained in computer files, this position may involve: opening, sorting, marking, tabulating, and filing various documents.

23. Graphics Specialist

Conceptualizes, designs, and develops a wide variety of information materials (technical, promotional, informational), such as forms, labels, brochures, meeting and conference handouts, slides, posters, and other presentation aids. Designs other visuals such as logos, mastheads, and illustrations for articles in technical manuals, health journals, and other publications. Develops a system for scheduling and tracking requests for graphics/artwork to insure timely and efficient completion of all work products. Uses advanced desktop publishing, page layout, or typesetting software to design and develop high quality textual and graphic compositions to communicate complex technical information.

24. Graphical User Interface Designer

Provides specialized expertise in the design and layout of graphical user interfaces particularly screen layouts and functionality for client-server applications (e.g. Microsoft Windows presentation screens). Conducts studies, testing and evaluation of screen prototypes for functionality, ease of use, efficiency, and accuracy.

25. Informatics Specialist

Provides high level expertise in the application of technology to areas of interest to CDC including: Medical Informatics or Public Health Informatics; statistics, bio-statistics,

mathematics; specific tools and data resources relevant to the CDC mission including SAS, Epi Info, etc.; applying sound quantitative data and methods to support deployment of resources for massive public health surveillance, prevention and intervention campaigns and related health activities. Provide expertise across a wide variety of IT areas as applied to public health, including information retrieval technology, decision science, web technology, data mining, expert systems, networking, public health science, and education. Provide expertise in the integration of a variety of heterogeneous public health information systems and databases the sharing and dissemination of public health information; in the interaction of information security technology and the requirements for privacy and confidentiality of public health data; in the application of the HIPAA regulations to the use of information technology in public health; in new areas of interest to public health including the information available from managed care organizations; with national and/or international standards development activities such as HL7, X12, W3C; and in the application of advanced scientific visualization technology to public health science and practice.

26. Instructional Technologist

Develops, implements, and maintains training scenarios, approaches, objectives, plans, tools, aids, curriculums, and other state of the art technologies related to training and behavioral studies. Identifies the best approach training requirements to include, but not limited to hardware, software, simulations, course assessment and refreshment, assessment centers, oral examinations, interviews, computer assisted and adaptive testing, behavior-based assessment and performance, and team and unit assessment and measurement.

27. IT Security Specialist

Provides support to ensure applicable government Information Resources Management standards, policies, procedures, guidelines, rules, and regulations are followed for IT security. Develops, tests and maintains corporate contingency plans and disaster recovery procedures.

28. Joint Application Design (JAD) Facilitator

Assists group members of Joint Application Design (JAD) teams formed in developing information system specifications and functionality to communicate their ideas, information, and opinions more effectively. Manages the JAD team meetings and workshops. Keeps the JAD team focused on the subject at hand to achieve objectives, assures discussions are brought to conclusion.

29. Network Engineer II

Provides leadership and technical guidance for a team of Network Engineers. Provides expertise in installation, maintenance, and operational support of data networks primarily using utility fileservers and servers such as Novell-based or NT-based file and print servers and UNIX servers. Tests equipment and software, trouble shoots problems, works

to resolve difficult technical issues, assists other technical staff with network problem resolution, and informs other staff of resolutions as appropriate. Monitors network use and adjust configurations and implements system enhancements to achieve optimal performance. Researches and obtains network administration tools for testing or team use as appropriate. Coordinates work efforts with network staff, LAN administrators, and vendors as applicable for optimum efficiency. Work conforms to all CDC and other federal government standards and requirements for network systems and security.

30. Network Engineer I

Provides technical expertise to other network support staff as well as support of a data network primarily using utility fileservers and servers such as Novell-based or NT-based file and print servers and UNIX servers. Provides technical assistance to other network and LAN staff as required. Coordinates work efforts with network staff, LAN administrators, and vendors as applicable for optimum efficiency. Work conforms to all CDC and other federal government standards and requirements for network systems and security.

31. Network Specialist

Provides support for data networks primarily using utility fileservers and servers such as Novell-based or NT-based file and print servers, UNIX, Exchange, and Application servers. Provides technical assistance to other network and LAN staff as required. Coordinates work efforts with network staff, LAN administrators, and vendors as applicable for optimum efficiency. Work conforms to all CDC and other federal government standards and requirements for network systems and security. technical assistance to other network and LAN staff as required. Coordinates work efforts with network staff, LAN administrators, and vendors as applicable for optimum efficiency. Work conforms to all CDC and other federal government standards and requirements for network systems and security.

32. Production Control Coordinator

Provides control and coordination of production jobs submitted to the batch processing environment. Schedules jobs, submits jobs, monitors job execution, logs problems with job execution, notifies programmers of problems, and takes standard corrective actions when jobs fail to execute properly.

33. Project Lead

Plans, develops, organizes, coordinates, and manages IT projects. Functions may include defining, acquiring, and assigning resources, developing and gaining approval of project plans and budgets, conducting cost/benefit analyses and risk assessments, monitoring and reviewing project progress, serving as liaison with customers, adjusting schedules and plans as necessary, identifying and resolving issues, and obtaining user acceptance of completed products/services. Also may include ensuring the technical proficiency and productivity of project staff and the quality of project deliverables.

34. Public Health Analyst

Oversees and develops data management systems, including computer programs to monitor data quality, (SAS, MS ACCESS, MS Excel); communicates with project areas regarding study activities and protocol; analyzes data for reports, presentations and publications; assists in the review of study data for data quality; organizes study files, including data and correspondence files (MS OFFICE); WordPerfect); performs scientific, medical and research literature searches in fields including but not limited to Behavioral and Social Sciences, Epidemiology, and Laboratory and prepares slides for scientific presentations (MS PowerPoint); provides analytic support to multi-disciplinary teams in order to accomplish public health research and program goals.

35. Quality Assurance and Quality Control (QA/QC) Specialist

Provides an overall management function that determines, defines, and implements QA/QC policies, programs, and procedures, to data management, analytic, and programming activities and products. Uses analytical tools to quantitatively measure quality, reports on findings, and makes recommendations on changes to meet specifications and quality standards.

36. Scientific Data Analyst

Provides high level expertise in applicable public health disciplines to collect, abstract, code, analyze, or interpret scientific data contained within information systems and databases related to public health.

37. Systems Analyst III (Includes Chief Technologist)

Provides high level expertise in developing complex software applications involving new technologies, methods, concepts or approaches. Provides supervisory, technical, and administrative direction for personnel performing software development tasks, including the review of work products for correctness, adherence to the design concept and to user standards, and for progress in accordance with schedules. Coordinates with Program Manager and CDC officials to ensure problem resolution and user satisfaction. Prepares and delivers presentations on the system concept to colleagues, subordinates and user representatives. Formulates statements of management, scientific and business problems, and devises procedures for solution of problems by use of automated data processing. Applying analytical skills and a variety of IT technology, performs required analysis of information management and data requirements, of practical alternative approaches, and design of IT systems. With the assistance of other analysts and programmer/analysts, also develops test plans, procedures and data, and evaluates system effectiveness and efficiency. Manage and direct project teams composed of specialists, analysts, and programmers. Meets with Project Officer or technical monitor and other cognizant personnel to review requirements, discuss technical approaches, and to formulate plans for technical support. Performs required detail analysis of information management and data requirements. Performs system development activities, design configuration management as needed.

38. Systems Analyst II

Provides development services for relatively complex applications using standard approaches or less complex systems using new approaches. Analyzes requirements for IT support. Designs and develops a data system to accomplish system required functions in an optimum manner. Develops plans for IT systems from project inception to conclusion. Analyzes the problem and the information to be processed. Defines the problem in writing. Specifies computer programs and functions that meet the system design with efficiency and ease of maintenance. Develops computer programs in a suitable language in conformance with programming standards. Provides technical guidance to other project members and serves as task leader on smaller tasks. Additionally, designs programs and prepares flow charts and diagrams that indicate mathematical computation and sequence of machine operations. Also verifies accuracy and completeness of programs by preparing sample data and coordinating test runs made by operating personnel. Correct program errors by revising instructions or altering operating run procedures. Evaluates and modifies existing programs to take into account changes in procedures or type of reports desired. May be required to use concepts generally associated with fourth generation equipment and languages. Performs system development activities, design configuration management as needed.

39. Systems Analyst I

Provides entry level systems development support using standard approaches. Devises and prepares layouts for computer systems requirements and develops procedures to process data by means of IT equipment. Confers with other technical personnel to determine problems and type of data to be processed. Analyzes a problem in light of equipment capability to determine technical approach. Formulates solutions to identified/software needed for their solution. Writes specifications for each program or portion thereof. May be required to develop and implement applications utilizing mathematical and statistical formula. Performs system development activities, design configuration management as needed.

40. Systems Engineer II

Provides installation, maintenance, and operational support of specialized programming and database software such as software engineering tools, DBMS's, etc.

41. Systems Engineer I

Provides data communication network support by installing, maintaining, trouble shooting and correcting problems related to controllers, front-end processors, multiplexors, modems data communication leased lines, LAD circuits, bridges, routers and token ring networks. Monitors and oversees the functions of the data network using such tools as NETVIEW, OMEGAMON, and TSO screens. Alerts users of potential problems on the network and initiates procedures to correct faults before they become major problems. Monitors the activities on the mainframe computer with a major emphasis on remote communications. Writes systems programs (CLISTS) and develops

routines for automating computer and console operations. Develops reports on network utilization. Develops and writes operating procedures for system operators. Acts as a resource person to shift operators for optimizing the computer for peak efficiency and assists in resolving problems unfamiliar to the operator. Extensive knowledge of the various components of the data communications, systems diagnostics, standard operating procedures, and communication standards is required.

42. Systems Programmer III

Provides high level of experience and expertise in implementing and maintaining IBM OS/390 and UNIX operating system software, new hardware technology, methods, concepts or approaches. Provides technical, and administrative direction for personnel performing systems programming tasks at lower skill levels, including the review of work products for correctness, adherence to standards, and for progress in accordance with schedules. Maintains knowledge of technological advances in both hardware and systems software, awareness of other software efforts being planned, and makes recommendations to CDC for implementation of system software changes. Performs detailed software and hardware monitoring as needed. On the basis of studies conducted, makes recommendations in the area of systems standards and procedures, and all changes to the system software and hardware configurations to achieve maximum overall system performance and effectiveness. Plans and carries out the installation and unit testing of highly complex operating systems, communications software, utility programs, language compilers, data management software, and other general use programs.

43. Systems Programmer II

Provides expertise in planning, installing, maintaining, tuning, developing and using for large and highly complex programs that comprise major segments of IBM OS/390 and/or UNIX operating software, which may include operating system control programs, online interactive systems, production management systems, data storage management systems, computer hardware reliability tracking systems, computer resource accounting systems, security software, etc. Troubleshoots problems and implements changes in assigned area. Diagnoses system failures to isolate the source of problem between hardware, system software, and application software. Modifies code as required when the problem is determined to be in assigned area of responsibility and advises responsible software vendor as appropriate. Works with software vendors to document problems and develop/implement problem resolutions. Investigates factors such as amount of storage consumed, access time statistics, CPU utilization, unusual problems encountered, and recommends changes and improvements in areas of responsibility. Consults with and provides guidance to application programmers and/or end-users in the use of system software components, job control language, and procedures. Develops guidelines, written recommendations, and standard operating procedures in the use of assigned system software components.

44. Systems Programmer I

Installs, maintains, and performs modification tasks for assigned segments of systems software. Troubleshoots problems occurring in assigned software. Diagnoses systems failures to isolate source of assigned software and/or notifies responsible software vendor as appropriate. Maintains a sample set of programs that can be used to test the effects of modifications to assigned systems software.

45. Technical Automation Specialist

Provides highly technical expertise and guidance for performance of tasks concerning use of microcomputer hardware and software. Has expertise in advanced, integrated or highly complex microcomputer systems or in selected microcomputer specialties. Areas of application include design, implementation, and operation of office automation systems utilizing state-of-the-art hardware and software components and interfacing them into the current environment. The result would be a faster more comprehensive network of resources. Provide hardware/software problem resolution for user assistance. Defines the problem in writing. Specifies computer programs and functions that meet the system design with efficiency and ease of maintenance. Develops computer programs in a suitable language in conformance with programming standards. Provides technical guidance to other project members and serves as task leader on smaller tasks. Additionally, designs programs and prepares flow charts and diagrams that indicate mathematical computation and sequence of machine operations. Also verifies accuracy and completeness of programs by preparing sample data and coordinating test runs made by operating personnel. Correct program errors by revising instructions or altering operating run procedures. Evaluates and modifies existing programs to take into account changes in procedures or type of reports desired. May be required to use concepts generally associated with fourth generation equipment and languages.

46. Technical Information Specialist

Performs work concerned with analyzing, summarizing, and coding the intellectual content of scientific, medical, technological, or other specialized information related to developing or maintaining scientific information systems, including acquisition, analysis of subject content of the documents acquired, indexing and preparation of abstracts or extracts. Develops thesauri, list of descriptions, subject heading lists, etc. Analyzes questions from users and performs literature searches; prepares replies in the from of documents, bibliographies, or specific answers to query. Directs, administers, or coordinates technical information services related to information systems. Work may include the special techniques, methods, and devices of a semi- or fully-automated documentation system.

47. Technical Writer/Documentation Specialist

Provides technical writing for program and operational documentation. Provides documentation in presentation-ready quality output using advanced word processing or desk top publishing software.

48. Tester

Participate in system design efforts. Produce test plan documents for client/server applications. Create test requirements documents. Create and run test scripts. Compile test scripts into test procedures. Run regression tests. Complete manual checklists for client/server applications. Track status of defects. Create manual test scripts for mainframe applications. Coordinate distribution of applications. Provide quality assurance testing for all systems developed by CDC to ensure the development and distribution of quality products. Assists with roll-out of systems documentation. Develop formal application test plans and test requirements documents as required. Develop automated test scripts and test procedures using client/server testing tool. Produce manual checklists document as required. Produce lists of defects that are to be resolved and incorporated into future releases of the application as required. Communicate with analysts and programmers about formal testing plans, problems, and results. Develop technical documentation and reports.

49. Training Specialist II

Proficient with all LAN based software available to users particularly CDC administrative systems and those developed by the CIO. Conducts the research necessary to develop and revise training courses and prepares appropriate training catalogs. Maintains relationship with users to continually determine training and user support needs. Develops all instructor and student materials. Trains personnel by conducting formal classroom courses, workshops, seminars, and/or computer based/computer aided training. Provides daily supervision and direction to training and user support staff. Using extensive knowledge of LAN based software, supports users of information systems following the established organizational procedures, and provides documented user support databases. Designs and implements user support help systems for applications developed in-house.

50. Training Specialist I

Formulates statements of training problems based on needs assessment, and devises procedures for the solution of these problems using proven training techniques. Designs, develops, and implements the curriculum. Evaluates and selects appropriate training techniques and media. Develops training evaluation methods, and conducts training sessions. Proficient with all LAN-based software available to users, including those developed in-house, formulates statements of training based on needs assessment, and devises procedures for solutions using proven training techniques. Designs, develops, and implements the curriculum. Develops training evaluation methods, prepares student

and instructor materials, and conducts training sessions. Using extensive knowledge of LAN based software, supports users of information systems following the established organizational procedures, and provides documented user support database(s).

51. User Relations Specialist

Able to communicate with CDC clients and collaborators, nationally and internationally, to evaluate opportunities to apply CDC information technology resources for data collection, communication, management, analysis, and information dissemination in support of public health. Capable of preparing and delivering sophisticated presentations to diverse audiences. Familiar with information systems strategic planning, implementation, distribution, and user support. Travel to user's sites to assist in the implementation or installation of CDC developed or supplied information systems products and services may be required.

52. User Support Specialist III

Supports users of information systems as well as resolving user account and LAN access problems by triaging calls, researching complex problems and questions, responding with answers or interventions, providing on site assistance, tracking calls, analyzing call data for trends and common system problems, and evaluating the quality of information systems through user support call data. May serve as Help Desk Manager providing daily supervision and direction to staff who are responsible for phone and in-person support to users. These personnel serve as the first point of contact for troubleshooting, software, networks, peripherals, etc. problems. May act as a resource for solutions for more complex questions presented by escalation procedures from User Support Specialist I and II. Provides technical writing for program and operational documentation. Provides documentation in presentation-ready quality output using advanced word processing or desk top publishing software. The User support could encompass workstations running Windows 2000, Windows NT, Unix OS, or MacIntosh OS or as required by the task.

53. User Support Specialist II

Supports users of information systems as well as resolving user account and LAN access problems by triaging calls, researching moderately complex problems and questions, responding with answers and interventions, providing on site assistance, tracking calls, analyzing call data for trends and common system problems, and evaluating the quality of information systems through user support call data. May serve in help desk capacity providing phone and in-person support to users in the areas of software, peripherals, etc. problems; and serves as the initial point of contact for troubleshooting and resolving these problems. Provides technical writing for program and operational documentation. Provides documentation in presentation-ready quality output using advanced word processing or desk top publishing software. The User support could encompass

workstations running Windows 2000, Windows NT, Unix OS, or MacIntosh OS or as required by the task.

54. User Support Specialist I

Supports users of information systems by triaging calls, researching standard and less complex problems and questions, responding with answers or interventions, providing on site assistance, tracking calls, and analyzing call data for trends and common system problems. May serve in help desk capacity providing phone and in-person support to users in the areas of software, peripherals, etc. problems; and serves as the initial point of contact for troubleshooting and resolving these problems. The user support could encompass workstations running Windows 2000, Windows NT, Unix OS, MacIntosh OS, or as required by the task.